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PAT-NO: JP410124766A

DOCUMENT-
IDENTIFIER: JP 10124766 A

TITLE: ENVIRONMENT MONITORING SYSTEM, ABNORMALITY DETECTING
METHOD AND DEVICE THEREFOR

PUBN-DATE: May 15, 1998

INVENTOR-INFORMATION:

NAME COUNTRY

KIMURA, TETSUO

INT-CL (IPC): G08B017/00 , G08B017/06 , G08B031/00

ABSTRACT:

PROBLEM TO BE SOLVED: To provide an environment monitoring system and an abnormality detecting method in which malfunction due to the delicate change of environment or the influence of noise or the like can be reduced, and exact abnormality detection can be attained at the time of detecting abnormality such as fire by using a Mahalanobis distance.

SOLUTION: At the time of forming a Mahalanobis space in a normal state, not only (q) sets of basic data sets DS1-DSq obtained from each sensor S1-Sq in a normal time under (q) kinds of basic environment conditions E1-Eq but also (w) sets of job spot reference data sets DSq+1-DSq+w obtained from each sensor S1-Sn in a normal time under (w) kinds of job spot environment conditions Eq+1-Eq+w are considered. Then, the total (q+w) sets of data sets DS1-DSq+w in a normal time of the (q) sets of basic data sets DS1-DSq and the (w) sets of job spot reference data sets DSq+1-DSq+w are defined as a reference data set, and the Mahalanobis space being a reference, that is, a reference Mahalanobis distance Dj2 is calculated.

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Abstract Text - FPAR (1):

PROBLEM TO BE SOLVED: To provide an environment monitoring system and an abnormality detecting method in which malfunction due to the delicate change of environment or the influence of noise or the like can be reduced, and exact abnormality detection can be attained at the time of detecting abnormality such as fire by using a Mahalanobis distance.

Abstract Text - FPAR (2):

SOLUTION: At the time of forming a Mahalanobis space in a normal state, not only (q) sets of basic data sets DS_1-DS_q obtained from each sensor S_1-S_q in a normal time under (q) kinds of basic environment conditions E_1-E_q but also (w) sets of job spot reference data sets $DS_{q+1}-DS_{q+w}$ obtained from each sensor S_1-S_n in a normal time under (w) kinds of job spot environment conditions $E_{q+1}-E_{q+w}$ are considered. Then, the total ($q+w$) sets of data sets DS_1-DS_{q+w} in a normal time of the (q) sets of basic data sets DS_1-DS_q and the (w) sets of job spot reference data sets $DS_{q+1}-DS_{q+w}$ are defined as a reference data set, and the Mahalanobis space being a reference, that is, a reference Mahalanobis distance D_{j2} is calculated.

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